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BIOLOGICAL STATIONS OCCUPIED FROM ARLIS I

September 10, 1960 - March 17, 1961

These studies were aided by a contract between the Office of Naval Research, Department of the Navy, and the University of Southern California, NONR 228(19), (NR 307-270).

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September 10, 1960 - March 17, 1961

Compiled By

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June, 1966

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The following is a station list of the biological collections made from the Arctic Research Laboratory Ice Station No. 1 (ARLIS I). This station was established on September 10, 1960 at 75° 07' N, 135° 16' W in the Beaufort Sea by men of the U.S.S. Burton Island and the scientists and technicians who were to occupy the station. It was evacuated on March 17, 1961 after drifting westward (Fig. 1) for 174 days between the 74th and 75th parallels and covering about 920 miles.

The marine biological program was carried out by John F. Tibbs under the supervision of Dr. John L. Mohr and Mr. Stephen R. Geiger of the University of Southern California. This work was supported by the Office of Naval Research under Contract NONR 228(19), NR 307-270.

Biological collections were made at 501 stations. The majority were of the plankton (368), but bottom (27), sea-ice interface (91), and miscellaneous (15) samples were taken also.

The sampling was carried out from a plywood hut which was constructed over a meter-square hole (hydro-hole) dug through the three-meter-thick floe-ice. This was initially equipped with a large and small winch. Because of the breakdown of the large winch, the small electro-hydraulic winch with 1200 meters of cable had to be employed for most of the drift. These facilities were shared with the oceanographer.

With 1200 meters of cable, plankton and bottom sampling was limited to levels above that depth. As no workable sounding device was available, bottom depth measurements were possible only when bottom contact was made with sampling devices. Bottom depths for all other stations were derived from a bathymetric map (Link, and coworkers, 1960). These depths are given in the station list within parentheses. Throughout most of the drift the bottom depth was about 3500 meters, shallower depths (210-1000 meters) being encountered during the latter part of the drift.

The depths at which the tows were made are recorded in the amount of wire paid out from the surface of the hydrohole. Usually these measurements are close to the actual depths, as the angular departures from vertical are generally no greater than a few degrees. Whenever the movement of the island was great enough to cause greater departures from vertical, the wire bent against the ice of the sides of the hydrohole and the angle beyond the bend was not known.

Most plankton samples were obtained with either of two kinds of half meter closing plankton nets, one made of no.73 "NITEX" nylon netting (NC20) and the other of no.215 "NITEX" netting (NC6). Two non-closing nets, a speed net with no.62 "NITEX" nylon netting (NS) and a net of no.62 "NITEX" nylon netting (N24) with a rim of 1/2 m diameter were used occasionally. These nets which were made for

us by the Puget Sound Workshop, Belluvue, Washington have the following specifications:

1. NC20 -- closing net with no.73 "NITEX" nylon monofilament screen cloth (73 micron mesh opening), galvanized ring of 1/2 m diameter, net an 80 in. cone with the upper 19 in. of canvas and following, 58 in. of netting terminating with a 3 in. cod end of 3 1/2 in. diameter.

2. NC6 -- closing net with "NITEX" monofilament screen cloth (215 micron mesh opening), measurements as in no.1.

3. NS -- non-closing speed net with no.62 "NITEX" nylon monofilament screen cloth (62 micron mesh opening), upper rim 6 1/2 in. in diameter, second ring with a 9 3/8 in. diameter, between the two rings 10 in. of canvas and following 27 1/2 in. netting terminating with a 3 7/8 in. canvas cod end of 2 3/4 in. diameter.

4. N24 -- non-closing net with no.62 "NITEX" nylon monofilament screen cloth (62 micron mesh opening), galvanized ring of 1/2 m diameter, net a 63 in. cone with a 3 in. canvas collar and a 4 1/4 in. canvas cod end of 3 1/2 in. diameter.

Brass collecting buckets were employed at the (net's) cod ends. The buckets of NC20 and NC6 were fitted with screen windows which were of the same mesh as the net itself. The N24 had a collection bucket with a screen window of #25 mesh. The NS utilized an eight ounce glass jar at its cod end.

Horizontal (H) and vertical (V) plankton tows were made. Horizontal tows made with closing nets were closed at towing depth except as noted. Vertical tows were raised at approximately 10 m/min. Sometimes nets were suspended at one horizon for a measured period and were closed before reaching the surface; these are designated VH and the time at horizon is noted. The NS was used several times in conjunction with Nansen casts. These samples can not be considered as quantitative as they were towed at various depths for different periods of time. Such combinations are noted under the remarks column. The first time-entry for a plankton station is the time the net entered the water. The second may be either the time the net was closed or in case of tows which were not closed, the time of surfacing.

The first bottom sample, station 265, was taken on December 22, 1960 by accident during routine sampling with a plankton net. This was on a previously unknown topographic rise of about 1000 m, now called the ARLIS I Rise, at 74° 35' N, 159° 30' W at a depth of approximately 900 meters. Depths shallow enough for bottom sampling were not encountered again until January 14, 1961.

Standard bottom samplers used include the Orange Peel Bucket (OPB) the LaFond-Dietz Snapper (LDS), and the Pfleger Corer (PC). A small improvised dredge (Dredge) (5/16 in. rod iron frame, 5 in. x 11.5 in., employing a wire mesh liner of 1/8 in. aperture) was also used. For the first three samplers,

only the time of bottom contact is recorded and for the Dredge the time interval while on the bottom.

The sea-ice interface habitat (Mohr and Tibbs, 1963) was sampled with minnow traps baited with either meat or fish. These traps were suspended in the hydrohole at depths from just below the surface of the water to the bottom of the ice. Often amphipods (mainly Pseudalibrotus nanseni) could be attracted into the hydrohole by suspending the bait on a line in the hydrohole. They were then dipped out with a handnet. The handnet was also employed in collecting other organisms such as ctenophores in the hydrohole.

Samples collected in the hydrohole are designated in the station list as: 1. TM = minnow trap, baited 2. NH = handnet. If bait on a line was suspended in the hydrohole, this is noted in the remarks column.

Miscellaneous collections (MISC) are also referred to in the station list. These include material which was taken off the winch wire, tripping device, and messengers from a previous station and also debris taken from ice cores.

Samples were usually fixed within one minute after being taken. The most frequently employed

preservative was buffered 7% formalin in sea water and others include Bouin's, 70% ethanol, Schaudinn's and 1% aqueous osmium tetroxide. After an appropriate fixation period the samples were transferred to their final preservative and stored.

Each sample was given a station number and these were consecutive.

Positions are recorded in degrees and minutes of latitude and longitude. Time is recorded in Alaska Standard Time utilizing the 24 hour system with 2400 corresponding to 12 midnight.

ABBREVIATIONS

LAT	Latitude	
LONG	Longitude	
GEAR:	NC20	= closing net; nylon netting with 73 micron mesh opening
	NC6	= closing net; nylon netting with 215 micron mesh opening
	NS	= non-closing speed net; nylon netting with 62 micron mesh opening
	N24	= non-closing net, nylon netting with 62 micron mesh opening
	OPB	= Orange Peel Bucket
	LDS	= LaFond-Dietz Snapper
	PC	= Pfleger Corer
	DREDGE	= small improved bottom dredge
	TM	= minnow trap
	NH	= hand net
MISC	Miscellaneous	
V	Vertical	

H Horizontal

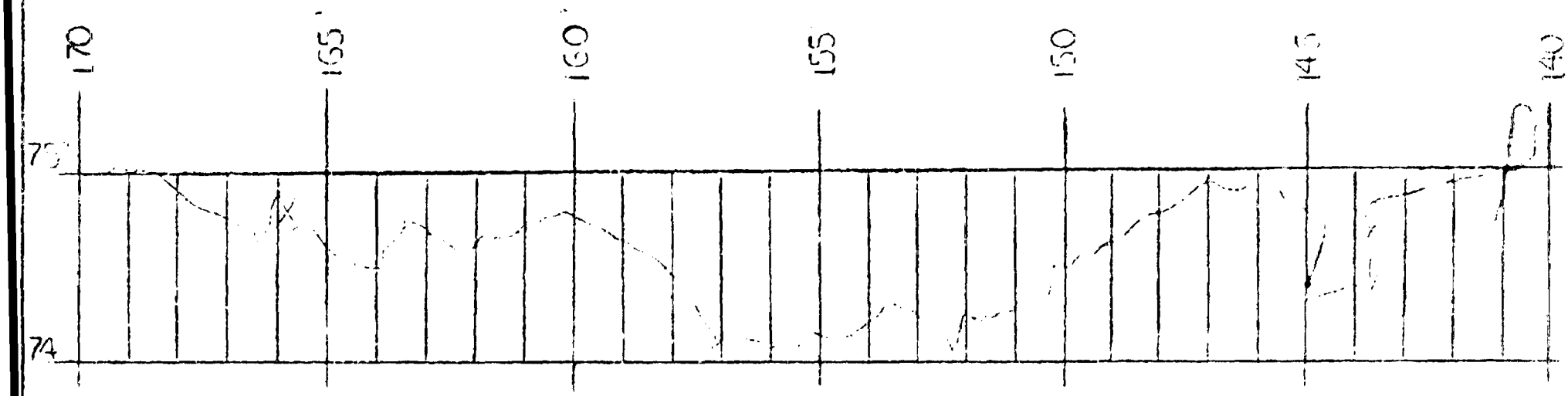
VH Tows that were suspended at one horizon for a measured period and were closed before reaching the surface

LITERATURE CITED

Link, T.A., J.A. Downing, G.O. Raasch, A.W. Byrne, D.W.R. Wilson, and A. Reece. 1960. Geological map of the Arctic. Calgary: Alberta Society of Petroleum Geologists.

Mohr, J.L. and J. F. Tibbs. 1963. Ecology of ice substrates. In: Proceedings of the Arctic Basin Symposium October 1962. The Arctic Institute of North America for the Office of Naval Research. Hershey, Pennsylvania, pp. 245-249.

FIGURE 1



DRIFT TRACK
OF
APLIS 1

STATION NUMBER	POSITION LAT(N)	LONG(W)	DATE	TIME	GEAR	SAMPLE DEPTH (M)	BOTTOM DEPTH (M)	REMARKS
1	74 40	141 06	25 SEPT 60	1900	NSV	100-0	(3600)	
2	74 42	141 06	26 SEPT 60	0800	NSV	200-0	(3600)	
3	74 48	141 06	27 SEPT 60	1400	NSV	600-0	(3600)	
4	74 48	141 06	27 SEPT 60	1700 1900	NSH	10	(3600)	
5	74 54	142 42	29 SEPT 60	1200 1300	NSV	1200-0	(3600)	TAKEN WITH NANSEN CAST
6	74 54	142 42	29 SEPT 60	1500 1530	NSV	200-0	(3600)	
7	74 54	142 36	29 SEPT 60 30 SEPT 60	2030 0830	NSH	200	(3600)	
8	74 54	142 36	30 SEPT 60	0830	NH	HYDROHOLE	(3600)	
9	75 00	140 36	1 OCT 60	1600 2030	NC20VH	1200 800	(3600)	TOWED AT 1050 M FOR 1 HR.
10	75 00	140 36	1 OCT 60	2045 2100	NH	HYDROHOLE	(3600)	
11	75 00	140 36	1 OCT 60	2100 2130	NC20V	30-0	(3600)	
12	75 00	140 36	1 OCT 60	2130 2200	NC20V	75-0	(3600)	
13	75 00 74 48	142 00 143 36	3 OCT 60 5 OCT 60	1200 1000	NSVH	1200-0	(3600)	TAKEN WITH NANSEN CAST; TOWED AT 600M FOR 41HP. 30MIN.
14	74 42	143 30	6 OCT 60	0730 0845	N24H	100	(3600)	
15	74 42	143 30	6 OCT 60	0900 1020	N24H	12	(3600)	
16	74 42	143 30	6 OCT 60	1045 1130	NC20V	200-15	(3600)	

STATION NUMBER	POSITION LAT(N)	LONG(W)	DATE	TIME	GEAR	SAMPLE DEPTH (M)	BOTTOM DEPTH (M)	REMARKS
17	74 42	143 30	7 OCT 60	0800 0830	N24V	80-0	(3600)	
18	74 42	143 30	7 OCT 60	1405 1455	NSV	200-0	(3600)	TAKEN WITH NANSEN CAST
19	74 42	143 30	7 OCT 60	1500 1545	NSV	100-0	(3600)	TAKEN WITH NANSEN CAST
20	74 42	143 30	7 OCT 60	1700 1900	N24H	80	(3600)	
21	74 42	143 30	7 OCT 60	2015 2100	N24H	40	(3600)	
22	74 42	143 30	7 OCT 60	2120 2305	N24H	120	(3600)	
23	74 42	143 30	7 OCT 60	2305	NH	HYDROHOLE	(3600)	
24	74 42	143 30	7 OCT 60 8 OCT 60	2310 0920	N24H	10	(3600)	
25	74 36	143 18	8 OCT 60	1120 1330	NSV	1200-0	(3600)	TAKEN WITH NANSEN CAST
26	74 36	143 18	8 OCT 60	1915 2115	N24H	50	(3600)	
27	74 36	143 18	8 OCT 60	2130	NH	HYDROHOLE	(3600)	
28	74 36	143 18	8 OCT 60	2130 2230	N24H	100	(3600)	
29	74 36	143 18	9 OCT 60	1000 1100	N24H	100	(3600)	
30	74 36	143 18	9 OCT 60	1125 1245	N24H	200	(3600)	
31	74 36	143 18	9 OCT 60	1305 1425	N24H	300	(3600)	
32	74 36	143 18	9 OCT 60	1515 1725	NC20VH	500-300	(3600)	TOWED AT 500M FOR 1HR.

STATION NUMBER	POSITION LAT(N)	LONG(W)	DATE	TIME	GEAR	SAMPLE DEPTH (M)	BOTTOM DEPTH (M)	REMARKS
33	73 36	143 12	10 OCT 60	1050 1345	NSVH	1200-0	(3600)	TAKEN WITH NANSEN CAST; TOWED AT 1200M FOR 1 HR.
34	73 36	143 12	10 OCT 60	1820 2100	NC20VH	700-500	(3600)	TOWED AT 700M FOR 1 HR. 10 MIN.
35	73 36	143 12	11 OCT 60	0800 1330	NC20VH	1200-700	(3600)	TOWED AT 1200M FOR 2 HRS. AND AT 900M FOR 45 MIN.
36	73 36	143 12	11 OCT 60	1535 1600	NC20V	85-0	(3600)	
37	74 30	143 36	13 OCT 60	0950 1350	NC20H	100	(3600)	
38	74 30	143 36	13 OCT 60	1405 1515	NC20H	80	(3600)	
39	74 30	143 36	13 OCT 60 14 OCT 60	2210 0910	N24H	80	(3600)	
40	74 30	144 36	14 OCT 60	0925 1155	N24H	30	(3700)	
41	74 30	144 36	14 OCT 60	1300 1530	NC20H	170	(3700)	
42	74 30	144 36	14 OCT 60	1630 2005	NC20H	50	(3700)	
43	74 30	144 36	14 OCT 60 15 OCT 60	2025 1050	NC20H	100	(3700)	
44	74 30	145 00	15 OCT 60	1330	MISC		(3700)	MATERIAL TAKEN FROM AN ICE CORE
45	74 30	145 00	15 OCT 60	1745 2100	NC20H	250	(3700)	NET NOT CLOSED
46	74 30	145 00	15 OCT 60 16 OCT 60	2115 1045	NC20H	65	(3700)	NET NOT CLOSED
47	74 36	144 54	16 OCT 60	1105 1605	NC20H	50	(3700)	NET NOT CLOSED
48	74 36	144 54	16 OCT 60	1615	NC20H	75	(3700)	

STATION NUMBER	POSITION LAT(N)	LONG(W)	DATE	TIME	GEAR	SAMPLE DEPTH (M)	BOTTOM DEPTH (M)	REMARKS
49	74 36	144 54	16 OCT 60	2115	NC20H	20	(3700)	
			17 OCT 60	0945				
50	74 36	144 48	17 OCT 60	2040	NC20H	10	(3700)	
			18 OCT 60	0905				
51	74 42	144 42	18 OCT 60	0917	NC20H	4	(3700)	NET NOT CLOSED
				1140				
52	74 42	144 42	18 OCT 60	1550	N24H	40	(3700)	
				2115				
53	74 42	144 42	18 OCT 60	2140	NH	HYDROHOLE	(3700)	
54	74 42	144 42	18 OCT 60	2145	N24H	150	(3700)	
			19 OCT 60	0945				
55	74 42	144 36	20 OCT 60	1007	N24H	10	(3700)	
				1055				
56	74 42	144 48	20 OCT 60	1919	N24H	25	(3700)	
				2119				
57	74 42	144 48	20 OCT 60	2130	NH	HYDROHOLE	(3700)	
58	74 42	144 48	20 OCT 60	2130	N24H	75	(3700)	
			21 OCT 60	0855				
59	74 48	145 12	21 OCT 60	0905	N24H	20	(3800)	
				1023				
60	74 48	145 12	21 OCT 60	1027	N24H	170	(3800)	
				1423				
61	74 48	145 12	21 OCT 60	1725	NC20H	300	(3800)	NET NOT CLOSED
				2038				
62	74 48	145 12	21 OCT 60	2045	NH	HYDROHOLE	(3800)	
				2100				
63	74 48	145 12	21 OCT 60	2100	NC20H	3.5	(3800)	NET NOT CLOSED
			22 OCT 60	1050				
64	74 54	145 12	22 OCT 60	1100	NC20H	35	(3800)	NET NOT CLOSED
				1358				

STATION NUMBER	POSITION LAT(N)	LONG(W)	DATE	TIME	GEAR	SAMPLE DEPTH (M)	BOTTOM DEPTH (M)	REMARKS
65	74 54	145 42	22 OCT 60	2100	NC20H	325	(3800)	
			23 OCT 60	0930				
66	74 54	146 12	23 OCT 60	1025	NC20H	275	(3900)	
				1450				
67	74 54	146 12	23 OCT 60	1520	NC20H	160	(3900)	
			24 OCT 60	1013				
68	74 54	146 36	24 OCT 60	1910	NC20H	40	(3900)	
			25 OCT 60	1006				
69	74 54	147 12	25 OCT 60	1030	NC20H	90	(3900)	
				1238				
70	74 54	147 12	25 OCT 60	1305	NC20H	150	(3900)	
				1517				
71	74 54	147 12	25 OCT 60	1557	NC20H	215	(3900)	
				2004				
72	74 54	147 12	25 OCT 60	1650	NH	HYDROHOLE	(3900)	
				1710				
73	74 54	147 12	25 OCT 60	2035	NC20H	275	(3900)	
			26 OCT 60	0855				
74	74 54	147 12	25 OCT 60	2230	NH	HYDROHOLE	(3900)	
75	74 42	148 24	27 OCT 60	0935	NC20H	30	(4000)	
				1332				
76	74 42	148 24	27 OCT 60	1343	NC20H	55	(4000)	
				2152				
77	74 42	148 24	27 OCT 60	2207	NC20H	95	(4000)	
			28 OCT 60	0851				
78	74 48	148 24	28 OCT 60	0902	NC20H	10	(4000)	NET NOT CLOSED
				1045				
79	74 48	148 24	28 OCT 60	1630	N24H	105	(4000)	
				2031				
80	74 48	148 24	28 OCT 60	2040	NH	HYDROHOLE	(4000)	
				2050				

STATION NUMBER	POSITION LAT(N)	LONG(W)	DATE	TIME	GEAR	SAMPLE DEPTH (M)	BOTTOM DEPTH (M)	REMARKS
81	74 48	148 24	28 OCT 60	2055	N24H	400	(4000)	
			29 OCT 60	1014				
82	74 42	148 36	29 OCT 60	1030	NH	HYDROHOLE	(4000)	
83	74 42	148 36	29 OCT 60	1040	NC20H	190	(4000)	
				1419				
84	74 42	148 36	29 OCT 60	1434	NC20H	23	(4000)	NET NOT CLOSED
				1742				
85	74 42	148 36	29 OCT 60	1751	NC20H	35	(4000)	
				2315				
86	74 42	148 36	29 OCT 60	2328	NC20H	85	(4000)	
			30 OCT 60	1052				
87	74 42	148 36	29 OCT 60	1150	NH	HYDROHOLE	(4000)	
88	74 36	148 54	30 OCT 60	1105	NC20H	19	(4000)	NET NOT CLOSED
				1218				
89	74 36	148 54	30 OCT 60	1758	NC20H	30	(4000)	
			31 OCT 60	0906				
90	74 36	149 18	31 OCT 60	0923	NC20H	140	(4000)	
				1310				
91	74 36	149 18	31 OCT 60	2022	NH	HYDROHOLE	(4000)	
92	74 36	149 18	31 OCT 60	2023	NC20H	50	(4000)	
				2218				
93	74 36	149 18	31 OCT 60	2200	NH	HYDROHOLE	(4000)	
				2300				
94	74 36	149 18	31 OCT 60	2232	NC20H	100	(4000)	NET NOT CLOSED
			1 NOV 60	0905				
95	74 30	149 30	1 NOV 60	0900	NH	HYDROHOLE	(4000)	
				0910				
96	74 30	149 30	1 NOV 60	0912	NC20H	20	(4000)	
				1455				

STATION NUMBER	POSITION LAT(N)	LONG(W)	DATE	TIME	GEAR	SAMPEL DEPTH (M)	BOTTOM DEPTH (M)	REMARKS
97	74 30	149 30	1 NOV 60	1515	NC20H	170	(4000)	
				2018				
98	74 30	149 30	1 NOV 60	2043	NC20H	220	(4000)	
			2 NOV 60	0854				
99	74 30	149 42	2 NOV 60	2047	N24H	22	(4000)	
			3 NOV 60	1001				
100	74 30	149 48	3 NOV 60	1029	NC20H	75	(4000)	
				1342				
101	74 30	149 48	3 NOV 60	1408	NC20H	295	(4000)	NET NOT CLOSED
				1437				
102	74 30	149 48	3 NOV 60	1448	NC20V	500-448	(4000)	
				1525				
103	74 30	149 48	3 NOV 60	1551	NC20H	33	(4000)	NET NOT CLOSED
				2149				
104	74 30	149 48	3 NOV 60	2219	NC20H	420	(4000)	
			4 NOV 60	0927				
105	74 30	149 48	4 NOV 60	0945	MISC		(4000)	MATERIAL TAKEN OFF HYDRO-WIRE FROM STATION 104
106	74 30	149 48	4 NOV 60	1015	NC20V	190-0	(4000)	
				1045				
107	74 30	149 48	4 NOV 60	1050	NC20V	130-0	(4000)	
				1309				
108	74 30	149 48	4 NOV 60	1317	NC20H	40	(4000)	
				1607				
109	74 30	149 48	4 NOV 60	1618	NC20H	62	(4000)	
				2115				
110	74 30	149 48	4 NOV 60	2130	NC20H	120	(4000)	
			5 NOV 60	1015				
111	74 30	149 54	5 NOV 60	1037	NC20H	145	(4000)	
				1352				
112	74 30	149 54	5 NOV 60	1400	NC20V	155-70	(4000)	
				1430				

STATION NUMBER	POSITION LAT(N)	LONG(W)	DATE	TIME	GEAR	SAMPLE DEPTH (M)	BOTTOM DEPTH (M)	REMARKS
113	74 30	149 54	5 NOV 60	2200	NH	HYDROHOLE	(4000)	
114	74 30	149 54	5 NOV 60	2230	NC20H	333	(4000)	
			6 NOV 60	1030				
115	74 30	150 00	6 NOV 60	1547	NC20H	410	(4000)	
			7 NOV 60	0947				
116	74 24	150 00	7 NOV 60	2011	NC20V	100-0	(4000)	
				2023				
117	74 24	150 00	7 NOV 60	2103	NC6V	200-0	(4000)	
				2120				
118	74 24	150 00	7 NOV 60	2139	NC6H	225	(4000)	
			8 NOV 60	0943				
119	74 24	150 00	8 NOV 60	1019	NC6V	336-174	(4000)	
				1028				
120	74 24	150 00	8 NOV 60	1030	NH	HYDROHOLE	(4000)	
				1045				
121	74 24	150 00	8 NOV 60	1046	NC6H	100	(4000)	NET NOT CLOSED
				1113				
122	74 24	150 00	8 NOV 60	1317	NC6V	538-361	(4000)	
				1355				
123	74 24	150 00	8 NOV 60	1404	NC6H	90	(4000)	NET NOT CLOSED
				1552				
124	74 24	150 00	8 NOV 60	1624	NC6V	700-487	(4000)	
				1657				
125	74 24	150 00	8 NOV 60	1701	NC6H	8	(4000)	
				2018				
126	74 24	150 00	8 NOV 60	2057	NC6H	8	(4000)	
			9 NOV 60	1502				
127	74 24	150 06	9 NOV 60	2334	NC6H	277	(4000)	
			10 NOV 60	0941				
128	74 18	150 12	10 NOV 60	1003	NC6H	33	(4000)	
				1257				

STATION NUMBER	POSITION LAT(N)	LONG(W)	DATE	TIME	GEAR	SAMPLE DEPTH (M)	BOTTOM DEPTH M)	REMARKS
129	74 18	150 12	10 NOV 60	1314	NC6H	55	(4000)	
				1507				
130	74 18	150 12	10 NOV 60	2256	NC20H	94	(4000)	
			11 NOV 60	1050				
131	74 18	150 18	11 NOV 60	1104	NC20H	35	(4000)	
				1245				
132	74 18	150 18	11 NOV 60	1945	NC20V	1210-652	(4000)	
				2204				
133	74 18	150 18	11 NOV 60	2212	NC20H	52	(4000)	
			12 NOV 60	0931				
134	74 18	150 24	12 NOV 60	1008	NC20H	87	(4000)	
				1337				
135	74 18	150 24	12 NOV 60	1110	NH	HYDROHOLE	(4000)	
136	74 18	150 24	12 NOV 60	1356	NC20H	127	(4000)	
				1656				
137	74 18	150 24	12 NOV 60	1857	NC20H	194	(4000)	
			13 NOV 60	1006				
138	74 18	150 30	13 NOV 60	1044	NC20H	249	(4000)	
				1250				
139	74 18	150 30	13 NOV 60	2100	NC20H	63	(4000)	
			14 NOV 60	0905				
140	74 18	150 42	14 NOV 60	0932	NC20H	273	(4000)	
				1246				
141	74 18	150 42	14 NOV 60	1326	NC20H	322	(4000)	
				1535				
142	74 18	150 42	14 NOV 60	2226	NC20H	415	(4000)	
			16 NOV 60	0900				
143	74 18	150 42	14 NOV 60	2300	NH	HYDROHOLE	(4000)	
				2345				
144	74 18	151 00	15 NOV 60	0910	NH	HYDROHOLE	(4000)	

STATION NUMBER	POSITION LAT(N)	LONG(W)	DATE	TIME	GEAR	SAMPLE DEPTH (M)	BOTTOM DEPTH (M)	REMARKS
145	74 18	151 00	15 NOV 60	0940	NC20H	76	(4000)	
				1251				
146	74 18	151 00	15 NOV 60	1310	NC20H	132	(4000)	
				1512				
147	74 18	151 00	15 NOV 60	1535	NC20H	200	(4000)	
				2210				
148	74 18	151 00	15 NOV 60	2223	NC20H	9	(4000)	NET NOT CLOSED
			16 NOV 60	1229				
149	74 18	151 30	17 NOV 60	0924	NC20H	85	(4000)	
				1235				
150	74 18	151 30	17 NOV 60	1254	NC20H	143	(4000)	
				1513				
151	74 18	151 30	17 NOV 60	1537	NC20H	207	(4000)	
				2116				
152	74 18	151 30	17 NOV 60	2133	NC20H	21	(4000)	
				2232				
153	74 18	151 30	17 NOV 60	2258	NC20H	325	(4000)	
			18 NOV 60	0931				
154	74 18	151 48	18 NOV 60	1023	NC20H	390	(4000)	
				1249				
155	74 18	151 48	18 NOV 60	1305	NH	HYDROHOLE	(4000)	
156	74 18	151 48	18 NOV 60	1919	NC20H	10	(4000)	
				2205				
157	74 18	151 48	18 NOV 60	2225	NC20H	247	(4000)	
			19 NOV 60	0850				
158	74 18	152 12	19 NOV 60	0910	NH	HYDROHOLE	(4000)	
159	74 18	152 12	19 NOV 60	0916	NC20H	73	(4000)	
				1412				
160	74 18	152 12	19 NOV 60	2133	NC20V	85-0	(4000)	
				2139				

STATION NUMBER	POSITION LAT(N)	LONG(W)	DATE	TIME	GEAR	SAMPLE DEPTH (M)	BOTTOM DEPTH (M)	REMARKS
161	74 18	152 12	19 NOV 60	2156	NC20H	136	(4000)	
			20 NOV 60	0754				
162	74 18	152 12	19 NOV 60	2240	TM	HYDROHOLE	(4000)	
			20 NOV 60	0754				
163	74 18	152 12	20 NOV 60	0809	NC20H	27	(4000)	
			21 NOV 60	1511				
164	74 18	152 12	21 NOV 60	1530	NC20H	8	(4000)	
				2003				
165	74 18	152 12	21 NOV 60	2014	NC20H	4	(4000)	NET NOT CLOSED
			22 NOV 60	0959				
166	74 18	152 12	22 NOV 60	0930	NH	HYDROHOLE	(4000)	
167	74 18	152 12	22 NOV 60	1008	NC20H	7	(4000)	
				1426				
168	74 18	152 12	22 NOV 60	1437	NC20H	17	(4000)	
				1705				
169	74 18	152 12	22 NOV 60	1715	NC20H	30	(4000)	
				2129				
170	74 18	152 12	22 NOV 60	2138	NC20H	4	(4000)	NET NOT CLOSED
			24 NOV 60	1240				
171	74 00	152 06	24 NOV 60	1250	NC20H	39	(4000)	
				1422				
172	74 00	152 06	24 NOV 60	2358	N24H	5	(4000)	
			25 NOV 60	0920				
173	74 06	152 12	25 NOV 60	0936	N24H	7	(4000)	
				1620				
174	74 12	151 36	26 NOV 60	1950	NC20V	100-0	(4000)	
				2015				
175	74 12	152 36	26 NOV 60	2040	NC20V	200-0	(4000)	
				2115				
176	74 12	152 36	26 NOV 60	2149	NC20H	301	(4000)	
			27 NOV 60	1245				

STATION NUMBER	POSITION LAT(N)	POSITION LONG(W)	DATE	TIME	GEAR	SAMPLE DEPTH (M)	BOTTOM DEPTH (M)	REMARKS
177	74 18	153 12	27 NOV 60	1749	NC20H	400	(4000)	
			28 NOV 60	0823				
178	74 18	153 24	28 NOV 60	0858	NC20H	4	(4000)	NET NOT CLOSED
				1226				
179	74 18	153 24	28 NOV 60	2100	NC20V	480-213	(4000)	
				2250				
180	74 18	153 24	28 NOV 60	2256	NC20H	4	(4000)	
			29 NOV 60	0903				
181	74 18	153 36	29 NOV 60	0914	NC20V	700-473	(4000)	
				1020				
182	74 18	153 36	29 NOV 60	1054	NC20VH	1200-886	(4000)	TOWED AT 1200M FOR 27 MIN.
				1320				
183	74 18	153 36	29 NOV 60	2054	NC20V	125-0	(4000)	
				2107				
184	74 18	153 36	29 NOV 60	2115	NC20V	250-130	(4000)	
				2146				
185	74 18	153 36	29 NOV 60	2151	NC20V	400-252	(4000)	
				2230				
186	74 18	153 36	29 NOV 60	2240	NH	HYDROHOLE	(4000)	
187	74 18	153 36	29 NOV 60	2243	NC20H	34	(4000)	
			30 NOV 60	0857				
188	74 18	153 36	30 NOV 60	0919	NC20V	500-400	(4000)	
				1002				
189	74 18	153 36	30 NOV 60	1012	NC20VH	700-513	(4000)	TOWED AT 700M. FOR 2 HR. 29 MIN.
				1340				
190	74 18	153 36	30 NOV 60	1402	NC20VH	900-692	(4000)	TOWED AT 900M. FOR 1 HR. 48 MIN.
				1710				
191	74 18	153 36	30 NOV 60	1630	NH	HYDROHOLE	(4000)	
				1730				
192	74 18	153 36	30 NOV 60	1818	NC20H	4	(4000)	NET NOT CLOSED
				1953				

STATION NUMBER	POSITION LAT(N)	POSITION LONG(W)	DATE	TIME	GEAR	SAMPLE DEPTH (M)	BOTTOM DEPTH (M)	REMARKS
193	74 18	153 36	30 NOV 60	2316	NC20H	2.5	(4000)	NET NOT CLOSED
			1 DEC 60	0851				
194	74 12	154 00	1 DEC 60	0918	NC20H	11	(4000)	NET NOT CLOSED
				1253				
195	74 12	154 06	1 DEC 60	1330	NC20VH	1200-11	(4000)	TOWED AT 1200M FOR 1 HR. 47 MIN.
				1720				
196	74 12	154 06	1 DEC 60	1330	NH	HYDROHOLE	(4000)	
				1730				
197	74 12	154 06	1 DEC 60	2153	NC20H	75	(4000)	
			2 DEC 60	0942				
198	74 12	154 06	1 DEC 60	2241	N24H	3	(4000)	
			2 DEC 60	0935				
199	74 12	154 18	2 DEC 60	1019	NC20H	32	(4000)	
				1335				
200	74 12	154 18	2 DEC 60	1445	NH	HYDROHOLE	(4000)	
201	74 12	154 18	2 DEC 60	2214	NC20H	265	(4000)	
			3 DEC 60	0853				
202	74 06	154 36	3 DEC 60	0845	NH	HYDROHOLE	(4000)	
203	74 06	154 36	3 DEC 60	0915	MISC		(4000)	MATERIAL TAKEN OFF TRIPPING DEVICE FROM STATION 201
204	74 06	154 36	3 DEC 60	1021	NC20H	100	(4000)	
				1427				
205	74 06	154 48	3 DEC 60	2151	NC20H	120	(4000)	
			4 DEC 60	1335				
206	74 06	155 06	4 DEC 60	2058	NC20H	400	(4000)	
			5 DEC 60	1704				
207	74 06	155 18	5 DEC 60	2225	NC20H	5	(4000)	NET NOT CLOSED
			6 DEC 60	1616				
208	74 06	155 18	6 DEC 60	0815	NH	HYDROHOLE	(4000)	
				0900				

STATION NUMBER	POSITION LAT(N)	LONG(W)	DATE	TIME	GEAR	SAMPLE DEPTH (M)	BOTTOM DEPTH (M)	REMARKS
209	74 06	155 18	5 DEC 60	2300	TM	HYDROHOLE	(4000)	
			6 DEC 60	1620				
210	74 06	155 18	6 DEC 60	2035	NC20V	300-0	(4000)	
				2103				
211	74 06	155 18	6 DEC 60	2200	NC20V	600-305	(4000)	
				2252				
212	74 06	155 18	6 DEC 60	2240	NH	HYDROHOLE	(4000)	
213	74 06	155 18	7 DEC 60	2258	NC20H	435	(4000)	
			8 DEC 60	1340				
214	74 06	155 18	7 DEC 60	2300	NH	HYDROHOLE	(4000)	
215	74 06	155 18	8 DEC 60	1405	MISC		(4000)	MATERIAL TAKEN OFF MESSENGER FROM STATION 213
216	74 06	155 36	8 DEC 60	1411	NC20H	4	(4000)	NET NOT CLOSED
				2122				
217	74 06	155 36	8 DEC 60	2132	NC20H	8	(4000)	NET NOT CLOSED
			9 DEC 60	0854				
218	74 06	155 36	8 DEC 60	2230	NH	HYDROHOLE	(4000)	
				2300				
219	74 06	155 36	8 DEC 60	2300	TM	HYDROHOLE	(4000)	
			9 DEC 60	0845				
220	74 06	156 12	9 DEC 60	0900	NH	HYDROHOLE	(4000)	
				0930				
221	74 06	156 12	9 DEC 60	1048	NC20H	13	(4000)	NET NOT CLOSED
				1902				
222	74 06	156 12	9 DEC 60	1430	TM	HYDROHOLE	(4000)	
				1630				
223	74 06	156 12	9 DEC 60	0930	TM	HYDROHOLE	(4000)	
				1315				
224	74 06	156 12	9 DEC 60	2202	TM	HYDROHOLE	(4000)	
			10 DEC 60	0815				

STATION NUMBER	POSITION LAT(N)	LONG(W)	DATE	TIME	GEAR	SAMPLE DEPTH (M)	BOTTOM DEPTH(M)	REMARKS
225	74 06	156 12	9 DEC 60	2208	NC20H	105	(4000)	
			10 DEC 60	0958				
226	74 06	156 06	10 DEC 60	1410	NC6V	300-0	(4000)	
				1454				
227	74 06	156 06	10 DEC 60	1602	NC6V	600-319	(4000)	
				1659				
228	74 12	157 00	10 DEC 60	2030	NC6V	900-594	(3700)	
				2151				
229	74 12	157 00	11 DEC 60	0032	NC6H	3	(3700)	NET NOT CLOSED
				1023				
230	74 12	157 00	11 DEC 60	1215	MISC		(3700)	FEMALE SEAL; HEAD, ORGANS, AND FOETUS
231	74 06	156 54	12 DEC 60	1410	NC6V	400-0	(3700)	
				1513				
232	74 06	156 54	12 DEC 60	2047	NC6V	800-401	(3700)	
				2202				
233	74 06	157 00	13 DEC 60	1049	NC6VH	1120-789	(3700)	TOWED AT 1120M FOR 2 HR. 19 MIN.
				1438				
234	74 06	157 00	13 DEC 60	1448	NC6H	18	(3700)	
			14 DEC 60	0925				
235	74 06	157 00	14 DEC 60	0937	NC6H	32	(3700)	
				1510				
236	74 06	157 00	14 DEC 60	1618	NC6V	300-0	(3700)	
				1650				
237	74 06	157 00	14 DEC 60	1951	NC6V	700-298	(3700)	
				2057				
238	74 06	157 00	14 DEC 60	2120	TM	HYDROHOLE	(3700)	
			15 DEC 60	0930				
239	74 06	157 0(	14 DEC 60	2137	NC6H	4.5	(3700)	NET NOT CLOSED
			15 DEC 60	0923				
240	74 06	157 06	15 DEC 60	1019	NC6V	900-696	(3700)	
				1128				

STATION NUMBER	POSITION LAT(N)	LONG(W)	DATE	TIME	GEAR	SAMPLE DEPTH (M)	BOTTOM DEPTH(M)	REMARKS
241	74 06	157 06	15 DEC 60	1403	NC6H	5	(3700)	
				1635				
242	74 06	157 06	15 DEC 60	1643	NC6VH	1200-836	(3700)	TOWED AT 1200M FOR
				2117				2 HR. 41 MIN.
243	74 06	157 06	16 DEC 60	1115	NC6V	125-10	(3700)	
				1124				
244	74 06	157 06	16 DEC 60	1622	NC6H	63	(3700)	
				2211				
245	74 06	157 06	16 DEC 60	2230	NC6V	300-40	(3700)	
				2310				
246	74 06	157 06	16 DEC 60	2340	NC6VH	345-67	(3700)	TOWED AT 345M FOR
			17 DEC 60	0941				9 HR. 41 MIN.
247	74 06	157 06	17 DEC 60	1048	NC20H	395	(3700)	NET NOT CLOSED
				1650				
248	74 06	157 06	17 DEC 60	2114	NC20H	3	(3700)	NET NOT CLOSED
			18 DEC 60	0909				
249	74 24	157 36	18 DEC 60	0919	NC20H	7	(3500)	NET NOT CLOSED
				2035				
250	74 06	157 36	18 DEC 60	2112	NC20H	145	(3500)	
			19 DEC 60	0845				
251	74 36	157 36	19 DEC 60	0913	NC20H	270	(3500)	
				1531				
252	74 36	157 36	19 DEC 60	1637	NC6V	250-0	(3500)	
				1654				
253	74 36	157 36	19 DEC 60	2028	NC6V	340-0	(3500)	
				2318				
254	74 36	157 36	19 DEC 60	2328	NC6H	90	(3500)	
			20 DEC 60	0855				
255	74 24	157 54	21 DEC 60	0026	NC6H	550	(3500)	
				0837				
256	74 24	157 54	21 DEC 60	0930	NH	HYDROHOLE	(3500)	
				1000				

STATION NUMBER	POSITION LAT(N)	POSITION LONG(W)	DATE	TIME	GEAR	SAMPLE DEPTH (M)	BOTTOM DEPTH (M)	REMARKS
257	74 24	157 54	21 DEC 60	0959	NC20H	550	(3500)	
				1305				
258	74 24	157 54	21 DEC 60	1335	NC20H	45	(3500)	
				1527				
259	74 24	157 54	21 DEC 60	1547	NC20H	175	(3500)	
				2009				
260	74 24	157 54	21 DEC 60	2025	MISC		(3500)	MATERIAL TAKEN OFF MESSENGER FROM STATION 259
261	74 24	157 54	21 DEC 60	2015	NH	HYDROHOLE	(3500)	
				2045				
262	74 24	157 54	21 DEC 60	2056	NC20H	370	(3500)	
				2246				
263	74 24	157 54	21 DEC 60	2353	NC20H	850	(3500)	NET NOT CLOSED
			22 DEC 60	0849				
264	74 24	157 54	22 DEC 60	0900	NH	HYDROHOLE	(3500)	
				1030				
265	74 36	159 30	22 DEC 60	1108	NC20	1145	1145	BOTTOM CONTACT; SAMPLE OBTAINED
				1733				
266	74 36	159 30	22 DEC 60	2255	N24H	3.5	(1145)	
			23 DEC 60	0856				
267	74 36	159 30	23 DEC 60	0858	N24H	9	(1145)	
				1127				
268	74 36	159 30	23 DEC 60	2227	NC20H	275	(1145)	
			24 DEC 60	0815				
269	74 36	159 30	24 DEC 60	0845	MISC		(1145)	MATERIAL TAKEN OFF OUTSIDE OF NET FROM STATION 268
270	74 36	159 30	24 DEC 60	1118	NC20H	60	(1145)	
				1609				
271	74 48	160 12	24 DEC 60	1632	NC20H	155	(1300)	
			25 DEC 60	1012				
272	74 48	160 12	25 DEC 60	1025	MISC		(1300)	MATERIAL TAKEN OFF MESSENGER FROM STATION 271

STATION NUMBER	POSITION LAT(N)	LONG(W)	DATE	TIME	GEAR	SAMPLE DEPTH (M)	BOTTOM DEPTH (M)	REMARKS
273	74 48	160 12	25 DEC 60	1030	NC20V	1200-760	(1300)	
				1210				
274	74 48	160 06	25 DEC 60	2117	NC6H	350	(1300)	
			26 DEC 60	0830				
275	74 48	160 06	26 DEC 60	1923	NC6V	500-0	(1300)	
				2018				
276	74 48	160 18	26 DEC 60	2250	NC6H	255	(1300)	
			27 DEC 60	0847				
277	74 48	160 18	26 DEC 60	2240	TM	HYDROHOLE	(1300)	
			27 DEC 60	0850				
278	74 48	160 18	27 DEC 60	0915	NC6V	910-489	(1300)	
				1030				
279	74 48	160 18	27 DEC 60	1130	NC6V	1200-785	(1300)	
				1400				
280	74 48	160 18	27 DEC 60	2040	NC6V	350-0	(1300)	
				2118				
281	74 48	160 18	27 DEC 60	2214	NC6H	170	(1300)	
			28 DEC 60	0827				
282	74 48	160 18	28 DEC 60	0840	MISC		(1300)	MATERIAL TAKEN OFF MESSENGER FROM STATION 281
283	74 48	160 18	27 DEC 60	2223	N24H	4	(1300)	
			28 DEC 60	0825				
284	74 48	160 48	28 DEC 60	0857	NC6H	120	(1300)	
				1255				
285	74 48	160 48	28 DEC 60	1326	NC6VH	1200-796	(1300)	TOWED AT 1200M FOR 2 HR. 15 MIN.
				1732				
286	74 48	160 48	28 DEC 60	1735	MISC		(1300)	MATERIAL TAKEN OFF MESSENGER FROM STATION 285
287	74 48	160 48	28 DEC 60	1630	NH	HYDROHOLE	(1300)	BAIT SUSPENDED ON A LINE IN HYDROHOLE
				1730				
288	74 48	160 48	28 DEC 60	2206	NC6H	450	(1300)	
			29 DEC 60	0903				

STATION NUMBER	POSITION LAT(N)	LONG(W)	DATE	TIME	GEAR	SAMPLE DEPTH (M)	BOTTOM DEPTH (M)	REMARKS
289	74 42	161 06	29 DEC 60	0925	MISC		(1300)	MATERIAL TAKEN OFF MESSENGER FROM STATION 288
290	74 42	161 06	29 DEC 60	0945	NC6H	40	(1300)	
				1227				
291	74 42	161 18	30 DEC 60	0900	NC6V	1200-826	(1300)	
				1036				
292	74 42	161 18	30 DEC 60	1049	NC6H	26	(1300)	
				1601				
293	74 42	161 18	30 DEC 60	1630	NC6V	40-0	(1300)	
294	74 42	161 18	30 DEC 60	1714	NC6H	50	(1300)	
				2148				
295	74 42	161 18	30 DEC 60	2235	NC6V	250-0	(1300)	
				2303				
296	74 42	161 36	30 DEC 60	2320	NC6H	75	(1300)	
			31 DEC 60	0859				
297	74 42	161 36	30 DEC 60	2324	N24H	4.6	(1300)	
			31 DEC 60	0855				
298	74 42	161 48	31 DEC 60	0930	NC6V	500-0	(1300)	
				1033				
299	74 42	161 48	31 DEC 60	1055	NC6H	24	(1300)	NET NOT CLOSED
				1317				
300	74 42	161 48	1 JAN 61	1028	NC6V	575-349	(1300)	
				1100				
301	74 42	161 48	1 JAN 61	1110	NC6H	33	(1300)	NET NOT CLOSED
			2 JAN 61	0834				
302	74 42	161 48	2 JAN 61	0849	NC6H	43	(1300)	NET NOT CLOSED
				1344				
303	74 42	161 48	2 JAN 61	1505	NC6V	1200-849	(1300)	
				1649				
304	74 42	162 18	2 JAN 61	2152	NC6H	360	(1300)	
			3 JAN 61	0916				

STATION NUMBER	POSITION LAT(N)	LONG(W)	DATE	TIME	GEAR	SAMPLE DEPTH (M)	BOTTOM DEPTH (M)	REMARKS
305	74 42	162 18	3 JAN 61	0940	MISC		(1300)	MATERIAL TAKEN OFF MESSENGER FROM STATION 304
306	74 42	162 18	2 JAN 61	2204	TM	HYDRHOLE	(1300)	
			3 JAN 61	0915				
307	74 42	162 18	3 JAN 61	0955	NC6H	36	(1300)	NET NOT CLOSED
				1055				
308	74 42	162 18	3 JAN 61	1116	NC6V	300-0	(1300)	
				1134				
309	74 36	162 36	3 JAN 61	2226	NC20H	85	(1300)	
			4 JAN 61	0927				
310	74 36	162 36	4 JAN 61	1019	NC20V	325-0	(1300)	
				1039				
311	74 36	162 36	4 JAN 61	1601	NC20V	400-0	(1300)	
				1626				
312	74 36	162 36	4 JAN 61	2151	NC20H	80	(1300)	
			5 JAN 61	0923				
313	74 36	162 36	5 JAN 61	1625	NC6V	450-0	(1300)	
				1652				
314	74 36	162 36	5 JAN 61	2203	NC6H	115	(1300)	
			6 JAN 61	0858				
315	74 36	162 36	6 JAN 61	0940	NC6V	1200-580	(1300)	
				1130				
316	74 36	162 36	6 JAN 61	1142	NC6H	50	(1300)	NET NOT CLOSED
				1327				
317	74 36	162 36	6 JAN 61	1409	NC6V	600-0	(1300)	
				1442				
318	74 36	162 36	6 JAN 61	1530	NC6V	360-0	(1300)	
				1553				
319	74 36	162 36	6 JAN 61	1638	NC6H	43	(1300)	NET NOT CLOSED
				2200				
320	74 36	162 42	6 JAN 61	2220	NC6H	30	(1300)	NET NOT CLOSED
			7 JAN 61	0929				

STATION NUMBER	POSITION LAT(N)	POSITION LONG(W)	DATE	TIME	GEAR	SAMPLE DEPTH (M)	BOTTOM DEPTH (M)	REMARKS
321	74 36	162 42	6 JAN 61	2300	NH	HYDROHOLE	(1300)	
				2400				
322	74 36	162 42	7 JAN 61	0000	TM	HYDROHOLE	(1300)	BAIT SUSPENDED ON A LINE
				0900				IN HYDROHOLE
323	74 36	162 42	7 JAN 61	1000	NH	HYDROHOLE	(1300)	BAIT SUSPENDED ON A LINE
				1030				IN HYDROHOLE
324	74 36	162 42	7 JAN 61	0942	NC6H	38	(1300)	NET NOT CLOSED
				1150				
325	74 36	162 48	7 JAN 61	2117	NC6H	145	(1300)	
			8 JAN 61	0900				
326	74 36	162 48	8 JAN 61	0916	NC6H	23	(1300)	NET NOT CLOSED
				2102				
327	74 36	162 48	8 JAN 61	2113	NC6H	70	(1300)	
			9 JAN 61	1003				
328	74 36	162 48	9 JAN 61	1015	NC6H	20	(1300)	NET NOT CLOSED
				1603				
329	74 42	163 12	9 JAN 61	1612	NC6H	30	(1000)	NET NOT CLOSED
			10 JAN 61	0840				
330	74 42	163 12	10 JAN 61	0925	NC6V	750-0	(1000)	
				1028				
331	74 42	163 12	10 JAN 61	1100	NC6V	400-0	(1000)	
				1122				
332	74 42	163 24	10 JAN 61	2145	NC6H	230	(1000)	
			11 JAN 61	0852				
333	74 42	163 24	11 JAN 61	1310	NC6V	1200-802	(1000)	
				1422				
334	74 42	163 24	11 JAN 61	1320	NH	HYDROHOLE	(1000)	BAIT SUSPENDED ON A
				1340				LINE IN HYDROHOLE
335	74 42	163 24	11 JAN 61	1525	NC6V	800-415	(1000)	
				1625				
336	74 42	163 24	11 JAN 61	2005	NC6V	520-0	(1000)	
				2033				

STATION NUMBER	POSITION LAT(N)	POSITION LONG(W)	DATE	TIME	GEAR	SAMPLE DEPTH (M)	BOTTOM DEPTH (M)	REMARKS
337	74 42	163 24	11 JAN 61	2050	TM	HYDROHOLE	(1000)	
			12 JAN 61	0845				
338	74 42	163 24	12 JAN 61	0918	NC6V	370-0	(1000)	
				0951				
339	74 42	163 24	12 JAN 61	1002	NC6H	11	(1000)	NET NOT CLOSED
				1422				
340	74 42	163 24	12 JAN 61	1015	NH	HYDROHOLE	(1000)	
				1045				
341	74 42	163 24	12 JAN 61	1120	NH	HYDROHOLE	(1000)	
				1140				
342	74 42	163 24	12 JAN 61	1507	NC6H	35	(1000)	NET NOT CLOSED
				2020				
343	74 42	163 30	12 JAN 61	2036	NC6H	60	(1000)	
			13 JAN 61	0927				
344	74 36	163 36	13 JAN 61	0915	NH	HYDROHOLE	(1000)	
345	74 36	163 36	13 JAN 61	1000	NC6H	95	(1000)	
				1155				
346	74 36	163 36	13 JAN 61	2028	NC20H	65	(1000)	
				2243				
347	74 36	163 36	13 JAN 61	2312	NC20H	150	(1000)	
			14 JAN 61	0910				
348	74 36	163 42	14 JAN 61	0950	NC6H	50	(890)	
				1421				
349	74 36	163 42	14 JAN 61	1453	NC6V	400-0	(890)	
				1514				
350	74 36	163 42	14 JAN 61	1626	NC6V	600-0	(890)	
				1702				
351	74 36	163 42	14 JAN 61	2036	NC6V	930-583	(890)	
				2051				
352	74 36	163 42	14 JAN 61	2256	OPB	890	890	

STATION NUMBER	POSITION LAT(N)	LONG(W)	DATE	TIME	GEAR	SAMPLE DEPTH (M)	BOTTOM DEPTH (M)	REMARKS
353	74 36	163 42	15 JAN 61	1100	PC	797	797	
354	74 30	163 54	15 JAN 61	2225	N24H	28	(747)	
			16 JAN 61	0832				
355	74 30	163 54	16 JAN 61	0912	N24V	300-0	(747)	
				0932				
356	74 30	163 54	16 JAN 61	1000	N24V	200-0	(747)	
				1014				
357	74 30	163 54	16 JAN 61	1040	PC	747	747	
358	74 30	163 54	16 JAN 61	1708	N24H	14	(747)	
				2026				
359	74 30	163 54	16 JAN 61	2125	OPB	743	743	
360	74 30	163 54	16 JAN 61	2212	DREDGE	747	747	
			17 JAN 61	0850				
361A	74 30	163 48	18 JAN 61	0947	NC6V	200-0	(747)	
				1000				
361B	74 30	163 54	17 JAN 61	1442	DREDGE	771	771	
				2124				
362	74 30	163 48	18 JAN 61	2000	NC6V	460-0	(747)	
				2024				
363	74 30	163 54	18 JAN 61	2121	NC6H	150	(675)	
			19 JAN 61	0902				
364	74 30	163 54	19 JAN 61	1010	PC	675	675	
365	74 30	163 54	19 JAN 61	1949	N24H	8	(675)	
				2151				
366	74 30	163 54	19 JAN 61	2222	NC6H	25	(675)	
			20 JAN 61	0845				
367	74 30	163 54	20 JAN 61	0908	NC6H	4.5	(675)	NET NOT CLOSED
				1300				

STATION NUMBER	POSITION LAT(N)	POSITION LONG(W)	DATE	TIME	GEAR	SAMPLE DEPTH (M)	BOTTOM DEPTH (M)	REMARKS
368	74 30	163 54	20 JAN 61	1320 1651	NC6H	90	(675)	
369	74 30	163 54	20 JAN 61	1727 2128	NC6H	160	(675)	
370	74 30	163 54	20 JAN 61 21 JAN 61	2200 0914	NC6H	250	(675)	NET NOT CLOSED
371	74 30	163 54	21 JAN 61	1015 1418	NC6H	350	(675)	
372	74 30	163 54	21 JAN 61	1518 2004	NC6H	420	(675)	
373	74 42	165 18	21 JAN 61 22 JAN 61	2155 0807	N24H	13	(418)	
374	74 42	165 18	22 JAN 61	0854	PC	418	418	
375	74 42	165 18	22 JAN 61	0910	MISC		(418)	MUD SAMPLE TAKEN FROM OUTSIDE OF PC OF STATION 374
376	74 42	165 18	22 JAN 61	1655 2005	NC6H	395	(418)	
377	74 48	165 18	22 JAN 61 23 JAN 61	2026 1020	NC6H	10	(418)	NET NOT CLOSED
378	74 48	165 18	22 JAN 61 23 JAN 61	2345 0915	TM	HYDROHOLE	(418)	
379	74 48	165 18	23 JAN 61	1034 1600	NC6H	30	(418)	NET NOT CLOSED
380	74 48	165 18	23 JAN 61	2130	LDS	428	428	NO SAMPLE OBTAINED
381	74 48	165 18	23 JAN 61 24 JAN 61	2225 0909	NC6H	36	(428)	
382	74 48	165 18	24 JAN 61	1054 1115	NC6V	350-0	(428)	
383	74 48	165 18	24 JAN 61	1300 1317	NC6V	310-0	(428)	

STATION NUMBER	POSITION LAT(N)	LONG(W)	DATE	TIME	GEAR	SAMPLE DEPTH (M)	BOTTOM DEPTH (M)	REMARKS
384	74 48	165 18	24 JAN 61	1339	NC6H	100	(428)	
				1739				
385	74 48	165 18	24 JAN 61	1758	NC6H	80	(428)	NET NOT CLOSED
				2050				
386	74 48	165 18	24 JAN 61	2115	NC6H	165	(428)	NET NOT CLOSED
			25 JAN 61	0825				
387	74 48	165 18	25 JAN 61	1020	PC	426	426	
388	74 48	165 18	25 JAN 61	1725	NC20H	110	(426)	NET NOT CLOSED
				1949				
389	74 48	165 36	25 JAN 61	2015	NC20H	215	(426)	NET NOT CLOSED
			26 JAN 61	1109				
390	74 48	165 36	25 JAN 61	2013	TM	HYDROHOLE	(426)	
			26 JAN 61	0940				
391	74 48	165 36	26 JAN 61	0940	TM	HYDROHOLE	(426)	
				1310				
392	74 48	165 36	26 JAN 61	1115	NH	HYDROHOLE	(426)	
393	74 48	165 36	26 JAN 61	1130	NC20H	60	(426)	NET NOT CLOSED
				1413				
394	74 48	165 36	26 JAN 61	1400	NH	HYDROHOLE	(426)	
395	74 48	165 36	26 JAN 61	1620	OPB	410	410	
396	74 48	165 36	26 JAN 61	1700	OPB	411	411	
397	74 54	166 00	27 JAN 61	1034	NC6H	35	(411)	NET NOT CLOSED
			28 JAN 61	0853				
398	74 54	166 00	28 JAN 61	1746	NC6H	300	(411)	
				2121				
399	74 54	166 00	28 JAN 61	2130	NH	HYDROHOLE	(411)	BAIT SUSPENDED ON A LINE IN HYDROHOLE

STATION NUMBER	POSITION LAT(N)	LONG(W)	DATE	TIME	GEAR	SAMPLE DEPTH (M)	BOTTOM DEPTH (M)	REMARKS
400	74 54	165 48	28 JAN 61	2229	NC6H	5	(411)	
			29 JAN 61	0812				
401	74 54	165 48	28 JAN 61	2130	TM	HYDROHOLE	(411)	
			29 JAN 61	0745				
402	74 54	165 48	29 JAN 61	0830	NC6H	66	(411)	NET NOT CLOSED
				2015				
403	74 54	165 48	29 JAN 61	2121	NC6V	400-0	(411)	
				2152				
404	74 54	165 48	29 JAN 61	0745	TM	HYDROHOLE	(411)	
			30 JAN 61	0805				
405	74 54	165 48	29 JAN 61	2157	NC6H	75	(411)	NET NOT CLOSED
			30 JAN 61	0821				
406	74 54	165 48	30 JAN 61	1005	NC6V	HYDROHOLE	(411)	
407	74 54	165 48	30 JAN 61	1015	NC6V	400-0	(411)	
				1205				
408	74 54	165 48	30 JAN 61	1304	NC6V	350-0	(411)	
				1335				
409	74 54	165 48	30 JAN 61	1348	NC6H	100	(411)	NET NOT CLOSED
				1921				
410	74 54	165 48	30 JAN 61		MISC		(411)	MATERIAL TAKEN FROM AN ICE CORE
411	74 54	165 48	30 JAN 61	1953	OPB	471	471	
412	74 54	165 48	30 JAN 61	2300	TM	HYDROHOLE	(471)	
			31 JAN 61	0750				
413	74 54	165 48	31 JAN 61	0800	TM	HYDROHOLE	(471)	
				1020				
414	74 54	165 48	31 JAN 61	0840	PC	458	458	
415	74 54	165 48	31 JAN 61		MISC		(458)	MATERIAL TAKEN FROM AN ICE CORE

STATION NUMBER	POSITION LAT(N)	LONG(W)	DATE	TIME	GEAR	SAMPLE DEPTH (M)	BOTTOM DEPTH (M)	REMARKS
416	74 54	165 48	31 JAN 61	1624	NC6H	20	(458)	
				2003				
417	74 54	165 48	31 JAN 61	2023	NC6H	220	(458)	
				2253				
418	74 54	165 48	31 JAN 61	2309	NC6H	4	(458)	NET NOT CLOSED
			1 FEB 61	0858				
419	74 48	166 00	1 FEB 61	0911	NC6H	50	(458)	
				1256				
420	74 48	166 00	1 FEB 61	1332	NC6H	375	(458)	
				1902				
421	74 48	166 00	1 FEB 61	1921	NC6H	40	(458)	
			2 FEB 61	0832				
422	74 48	165 54	2 FEB 61	0915	NC6H	60	(458)	NET NOT CLOSED
				1607				
423	74 48	165 54	2 FEB 61	2111	NC6H	44	(458)	
			3 FEB 61	0729				
424	74 48	165 48	3 FEB 61	1012	PC	419	419	
425	74 48	165 48	3 FEB 61	1748	NC20H	55	(419)	
				2208				
426	74 48	165 42	3 FEB 61	2235	NC6H	90	(419)	
			4 FEB 61	0902				
427	74 48	165 36	4 FEB 61	1105	NC6V	200-0	(419)	
				1115				
428	74 48	165 36	4 FEB 61	1144	NC6H	310	(419)	
				1621				
429	74 48	165 36	4 FEB 61	1645	NC6H	62	(419)	
			5 FEB 61	0925				
430	74 48	165 36	5 FEB 61	1145	OPB	416	416	
431	74 48	165 30	5 FEB 61	1200	TM	HYDROHOLE	(416)	
			6 FEB 61	0820				

STATION NUMBER	POSITION LAT(N)	LONG(W)	DATE	TIME	GEAR	SAMPLE DEPTH (M)	BOTTOM DEPTH (M)	REMARKS
432	74 48	165 36	5 FEB 61	1708	NC6H	55	(416)	
			6 FEB 61	0723				
433	74 48	165 42	6 FEB 61	0830	PC	418	418	
434	74 48	165 42	6 FEB 61	0840	TM	HYDROHOLE	(418)	
			7 FEB 61	0830				
435	74 48	165 42	6 FEB 61	1655	NC6H	413	(418)	
				2010				
436	74 48	165 42	6 FEB 61	2100	NC6H	390	(418)	
			7 FEB 61	0833				
437	74 48	165 42	7 FEB 61	0928	NC6H	417	(418)	
				1419				
438	74 48	165 42	7 FEB 61	1545	NC6V	260-0	(418)	
				1600				
439	74 48	165 42	7 FEB 61	1657	NC6H	7.5	(418)	NET NOT CLOSED
				2140				
440	74 48	165 42	7 FEB 61	2200	TM	HYDROHOLE	(418)	
			8 FEB 61	0900				
441	74 48	165 42	7 FEB 61	2202	NC6H	340	(418)	
			8 FEB 61	0904				
442	74 48	165 42	8 FEB 61	1556	NC6V	410-0	(418)	
				1622				
443	74 48	165 42	8 FEB 61	2114	NC6V	410-0	(418)	
				2142				
444	74 48	165 42	8 FEB 61	2209	NC6V	200-0	(418)	
				2223				
445	74 48	165 36	9 FEB 61	2140	NC6H	416	418	NET NOT CLOSED
			10 FEB 61	0844				
446	74 48	165 36	9 FEB 61	2140	DREDGE	418	418	
			10 FEB 61	0844				
447	74 48	165 36	9 FEB 61	2300	TM	HYDROHOLE	(418)	
			10 FEB 61	0830				

STATION NUMBER	POSITION LAT(N)	LONG(W)	DATE	TIME	GEAR	SAMPLE DEPTH (M)	BOTTOM DEPTH (M)	REMARKS
448	74 48	165 42	10 FEB 61	0935	NC6V	90-0	(418)	
449	74 48	165 42	10 FEB 61	1500	NC6H	7	(418)	NET NOT CLOSED
			11 FEB 61	0945				
450	74 48	165 48	11 FEB 61	1450	NC6H	150	(418)	
			12 FEB 61	0705				
451	74 48	165 48	12 FEB 61	0827	NC6V	439-0	440	
				0853				
452	74 48	165 48	12 FEB 61	2027	NC6H	175	(440)	
			13 FEB 61	0814				
453	74 48	165 54	13 FEB 61	1059	NC6V	438-0	440	
				1133				
454	74 48	165 54	13 FEB 61	1700	NC6H	385	(440)	
			14 FEB 61	1242				
455	74 48	165 54	14 FEB 61	1620	NC6V	418-0	420	
				1643				
456	74 48	165 54	14 FEB 61	1535	NC6V	200-0	(420)	
				1546				
457	74 48	165 54	15 FEB 61	0910	NC6V	449-0	450	
				0945				
458	74 54	165 54	15 FEB 61	1509	NC6H	40	(450)	
				2117				
459A	74 54	165 54	15 FEB 61	2134	NC6H	80	(450)	
			16 FEB 61	0940				
459B	74 54	165 54	17 FEB 61	0915	OPB	436	436	
460	74 54	165 54	17 FEB 61	2030	OPB	437	437	
461	74 54	166 00	19 FEB 61	1015	NC6V	435-0	436	
				1042				
462	74 54	166 00	20 FEB 61	0935	NC6V	432-0	433	
				0951				

STATION NUMBER	POSITION LAT(N)	POSITION LONG(W)	DATE	TIME	GEAR	SAMPLE DEPTH (M)	BOTTOM DEPTH (M)	REMARKS
463	74 54	166 06	20 FEB 61	1005	NC6H	28	(433)	NET NOT CLOSED
			21 FEB 61	0925				
464	74 54	166 06	21 FEB 61	1015	NH	HYDROHOLE	(433)	
465	74 54	166 06	21 FEB 61	1610	OPB	433	433	
466	74 48	166 06	21 FEB 61	1045	TM	HYDROHOLE	(433)	
			23 FEB 61	0930				
467	74 48	166 06	21 FEB 61	1640	NC6H	35	(433)	
			23 FEB 61	1250				
468	74 48	166 06	23 FEB 61	1100	NH	HYDROHOLE	(433)	
469	74 48	166 06	23 FEB 61	1540	NC6H	225	(433)	
			24 FEB 61	0840				
470	74 48	166 06	24 FEB 61	0935	PC	413	413	
471	74 42	166 12	27 FEB 61	0925	PC	407	407	
472	74 42	166 18	27 FEB 61	2100	TM	HYDROHOLE	(407)	
			1 MAR 61	0900				
473	74 42	166 18	1 MAR 61	0900	TM	HYDROHOLE	(407)	
				2100				
474	74 42	166 18	2 MAR 61	0910	OPB	407	407	
475	74 48	166 30	3 MAR 61	1553	NC6H	50	(407)	
			4 MAR 61	1015				
476	74 48	166 30	5 MAR 61	0925	PC	416	416	
477	74 48	166 30	5 MAR 61	1715	NC6H	100	(416)	
				2200				
478	74 48	166 30	6 MAR 61	2213	NC6H	60	(416)	
			8 MAR 61	1015				

STATION NUMBER	POSITION LAT(N)	LONG(W)	DATE	TIME	GEAR	SAMPLE DEPTH (M)	BOTTOM DEPTH (M)	REMARKS
479	74 48	166 30	6 MAR 61	2130	NH	HYDROHOLE	(416)	
480	74 48	166 36	7 MAR 61	2200	NH	HYDROHOLE	(416)	
481	74 48	166 48	9 MAR 61	1525	NH	HYDROHOLE	(416)	
482	74 48	166 48	9 MAR 61	1515	NH	HYDROHOLE	(416)	
483	74 48	166 48	10 MAR 61	1000	NH	HYDROHOLE	(416)	
484	74 54	166 18	11 MAR 61	0900	NH	HYDROHOLE	(416)	
485	74 5[illegible].8	167 15	12 MAR 61	2000	NH	HYDROHOLE	(416)	
486	74 50.8	167 15	12 MAR 61	2200	NH	HYDROHOLE	(416)	
487	74 50.8	167 15	12 MAR 61	1500	NC6H	28	(416)	
			13 MAR 61	1030				
488	74 53	167 45	13 MAR 61	1000	NH	HYDROHOLE	(416)	
489	74 53	167 45	13 MAR 61	1130	NH	HYDROHOLE	(416)	
490	74 53	167 45	13 MAR 61	1500	NC6H	25	(416)	NET NOT CLOSED
			15 MAR 61	1500				
491	NO POSITION		14 MAR 61	1530	NH	HYDROHOLE	(416)	
492	74 58.8	168 26	15 MAR 61	1455	OPB	210	210	
493	75 00	168 45	15 MAR 61	2130	NC20H	175	(210)	NET NOT CLOSED
			16 MAR 61	1630				
494	75 00	169 18	17 MAR 61	1300	NH	HYDROHOLE	(210)	

STATION NUMBER	POSITION LAT(N)	LONG(W)	DATE	TIME	GEAR	SAMPLE DEPTH (M)	BOTTOM DEPTH (M)	REMARKS
495	75 00	169 18	17 MAR 61	2007 2030	NC20V	235-0	(249)	
496	75 00	169 18	17 MAR 61 18 MAR 61	2050 1055	NC20H	244	249	
497	74 59.2	169 50	18 MAR 61	1030	NH	HYDROHOLE	(249)	
498	74 59.2	169 50	18 MAR 61	1110	NH	HYDROHOLE	(249)	
499	74 59.2	169 50	18 MAR 61	1110	NH	HYDROHOLE	(249)	
500	74 59.2	169 50	18 MAR 61	1120	NH	HYDROHOLE	(249)	
501	74 59.2	169 50	18 MAR 61	1400	NH			

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13 ABSTRACT

This report is a station list of the biological collections made from the Arctic Research Laboratory Ice Station No. 1 (ARLIS I) in the Arctic Ocean during the winter of 1960-61. The program was carried out by John F. Tibbs under the supervision of Dr. John L. Mohr and Mr. Stephen R. Geiger of the University of Southern California. Biological collections were made at 501 stations. (U)

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